IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Hark C. Chan	Examiner:	Nano, Sargon N
Serial No.:	**09/836,397**	Group Art Unit:	2457
Filed:	4/17/2001	Docket No.:	LOCREM-01
Title:	**A DATA DELIVERY SYSTEM USING LOCAL AND REMOTE COMMUNICATIONS**		

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits the present appeal brief within two months of the filing of the Notice of Appeal on March 17, 2009.

The commissioner is hereby authorized to charge any other fees which may be required, to deposit account 03-1243 (docket number LOCREM-01).

(i)   Real party in interest

The real party in interest is the applicant, Hark C. Chan.

(ii)   Related appeals and interferences

Applicant had filed an appeal for application serial number 11/760,088, which is the child of the present application.

(iii)   Status of claims

Claim 1 was cancelled. Claims 2-20 are rejected. Claims 2-20 are under appeal.

(iv)   Status of amendments

A final office action was mailed on December 18, 2008. No amendment has been submitted after this final office action.

(v)   Summary of claimed subject matter

The present invention is directed to a system for communication through a wide area network (e.g., 110). The system comprises an apparatus (e.g., 130) and at least one portable unit (such as 180). The apparatus comprises a wide area interface (e.g., 140) and a local interface (e.g., 142). The portable unit comprises a wide area interface (e.g., 188) and a local interface (e.g., 186). The wide area interfaces of the apparatus and the portable unit can communicate with each other via the wide area network. The local interfaces of the apparatus and the portable unit can communicate with each other when they are located within a short distance from each other (relative to the wide area communication). At least one of the apparatus and the portable unit generates non-deterministic digital contents at multiple times

without user action at these times. An example of a non-deterministic digital content is a digital code generated by a random number generator. The device that generates the non-deterministic digital contents (e.g., the portable unit) delivers it to the non-generating device (e.g., the apparatus). The apparatus and the portable unit then use the digital contents as identification in communication through the wide area network.

The present invention is also directed to a method for an apparatus (e.g., 130) and at least one portable unit (e.g., 180) to communicate through a wide area network (e.g., 110). At least one of the apparatus and the portable unit generates non-deterministic digital contents at multiple times without user action at these times. When the apparatus and the portable device are close to each other (relative to the wide area communication), the non-deterministic digital content is delivered from the generating device to the other device. The digital content can be used as identification in communication between the apparatus and the portable unit via the wide area network.

One way to map claim 2 to the drawings and specification is as follows:

(1)   A system for communication through a wide area network: The wide area network is shown as reference numeral 110 in the drawings (e.g., Fig. 1A).

(2)   An apparatus and at least one portable unit: The apparatus is shown as reference numeral 130 in Fig. 2A. Fig. 1A shows many portable units (such as reference numerals 112-114). A detailed drawing of a portable unit is shown in Fig. 3A as reference numeral 180.

(3)   The apparatus comprising a wide area interface and a local interface: Fig. 2A shows an exemplary apparatus, which contains a wide area interface 140 and a local interface 142.

(4)   One of the portable units comprising a wide area interface and a local interface: Fig. 3A shows an exemplary portable unit, which contains a wide area interface 188 and a local interface 186. The wide area interfaces of the apparatus and the portable unit can communicate with each other via the wide area network (see page 9, lines 11 and 12 of the specification). The local interfaces of the apparatus and the portable unit can communicate with each other when they are located within a short distance from each other (see page 6, lines 2-3 of the specification).

(5)   At least one member of said apparatus and said at least one portable unit generates non-deterministic digital contents at multiple times without user action at these times, said one member uses its local interface to deliver at least one of said digital contents to another member of said apparatus and said at least one portable unit: A random number generator and clock can be used to generate digital contents at predetermined times (see page 8, lines 4-12, of the application). The digital contents can be delivered using the local interface (see page 8, lines 12-16).

(6)   Said digital contents being used by said apparatus and said at least one portable unit as identification in communication via said wide area network: The communication is described on page 8, lines 4-6 and page 9, lines 11-13 and 18-19.

One way to map claim 12 to the drawings and specification is as follows:

(1)   A method for an apparatus and a portable unit to communicate through a wide area network: Page 8, lines 4-16, of the application describe the operation of an apparatus and a portable unit that can communicate through a wide are network.

(2)   Generating non-deterministic digital contents by one of the apparatus and the portable unit at multiple times without user action at these times: Page 8, lines 9-12, describe the use of a clock and a random number generator to create digital contents.

(3)   While the apparatus and portable unit are within a domain, delivering at least one of the digital contents by the one of the apparatus and the portable unit to another of the apparatus and the portable unit: Page 8, lines 12-16 describe the delivery of the digital contents.

(4)   Using the at least one of the digital contents as identification in communication between the apparatus and the portable unit via the wide area network: The communication is described on page 8, lines 4-6 and page 9, lines 11-13 and 18-19.

(vi)   Grounds of rejection to be reviewed on appeal

Whether claims 2-20 are unpatentable under 35 U.S.C. 103(a) over Weiss (U.S. Pat. No. 4,856,062) in view of Kaplan (U.S. Pat. No. 6,144,641).

(vii)   Arguments

(A)   Claim 2

In the final office action, the Examiner discussed claim elements of claim 2 and identified the corresponding portions in Weiss. Applicant will first match, based on the information provided in the final office action, the claim elements with the corresponding components in Weiss. Applicant will then discuss why claim 2 is patentable over Weiss and Kaplan.

> **(1)   Matching claim elements with corresponding components in Weiss: The Examiner considers the access control means in Weiss (reference numeral 50) as the claimed "portable unit" and the host computer in Weiss (no reference numeral) as the claimed "apparatus."**

On pages 2 and 3 of the final office action, the Examiner rejected the following claim element in claim 2: "an apparatus comprising: ... a first local interface for communicating with said at least one portable unit when said at least one portable unit is located within a domain." As used in the specification, the word domain can be defined as the geographic area in which the apparatus can communicate with its associated portable unit(s) locally. The Examiner's citation to Weiss is: "see col. 8 lines 10-20, Weiss discloses a portable device located in close proximity to a host." The quoted paragraph in Weiss is copied below:

> "In the form of the invention where the goal is to grant access 90 to data stored in one or more host computers remote from the first computers issued to authorized users, an **access control means** 50 is typically located in **close physical proximity** to such remotely located **host computers** such as in a host computer room." (col. 8, lines 10-20; emphasis added)

The above paragraph discloses that the access control means is in close physical proximity to host computers and thus may communicate with the host using a local interface. Weiss also states: "The access control means 50 **may be portable** such that it may be carried by a security

guard stationed at a central access location in a guarded building or other facility." (col. 8, lines 22-25; emphasis added). Based on the above paragraph, the Examiner considers the access control means as the claimed "portable unit" and the host computer as the claimed "apparatus."

(2) There is no teaching or suggestion in Weiss that non-deterministic digital content is passed between the "access control means" and the "host computer"

The paragraph in subsection (1) above copied from Weiss is all the disclosure in Weiss about the "host computer". This paragraph provides no details about communication between the "access control means" and the "host computer", let along teaching and suggestion that non-deterministic digital content is passed between the "access control means" and the "host computer", as required by claim 2. Thus, this limitation in claim 2 is missing from Weiss.

(3) There is no teaching or suggestion in Weiss that the "access control means" contains a wide area interface

Weiss teaches that the "access control means" and the "host computer" are close to each other. For example, Weiss states:

(1)   "an access control means 50 is typically located in close physical proximity to such remotely located host computers such as in a host computer room." (col. 8, lines 13-15).

(2)   "The access control means 50 may be portable such that it may be carried by a security guard stationed at a central access location in a guarded building or other facility." (col. 8, lines 22-25).

Thus the access control means and the host computer are in the same building. There is no need to use wide area interfaces for communication because (a) wide area interface is generally slower than local interface (e.g., a few mega-bits-per-second for cable modem, a wide area communication device, versus over 100 mega-bits-per-second for a regular local area

network card), and (b) wide area interface is generally more expensive (e.g. a cable modem may cost $50 while a regular local area network card may cost only ten dollars). As a result, Weiss teaches away from using wide area network for communication between the "access control means" and "host computer".

(4) There is no teaching or suggestion in Weiss that the "access control means" contains BOTH a local and a wide area interface

Claim 2 requires that the apparatus and portable unit both contain a wide area interface and a local interface. Even assuming that the Examiner is correct that the "access control means" can have a wide area interface, there is no teaching and suggestion that the "access control means contains **both** a local interface and a wide area interface. Including both interfaces will simply add unnecessary costs to the "access control means" without providing any benefits.

(5)   Weiss and Kaplan do not render claim 2 obvious

Page 4 of the final office action states that "Weiss does not explicitly teach that the verification process is conducted using wide area network" and that "Kaplan teaches a personal digit assistant is connected to a system using multiple interfaces such as a LAN, WAN, or plain old telephone sysetem (POTS)." The final office action then states in the next line that: "It would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the verification process in Weiss's invention using a wide area interface as disclosed in Kaplan to provide users located in different geographic locations with data connection capability to a computer or a host system."

Even assuming that the Examiner is correct, Kaplan merely adds teaching on verification and wide area network. There is no teaching or suggestion on (1) the apparatus and portable unit each contains both local and wide area interfaces, and (2) non-deterministic digital

content. Because of the significant differences between Weiss/Kaplan and claim 2, claim 2 is patentable over the art relied upon by the Examiner.

(B) Claim 12

Claim 12 recites "generating non-deterministic digital contents by one of the apparatus and the portable unit at multiple times without user action at these times." As discussed above in connection with claim 2, Weiss and Kaplan do not teach or suggest this limitation.

Claims 12 recites "while the apparatus and portable unit are within a domain, delivering at least one of the digital contents by the one of the apparatus and the portable unit to another of the apparatus and the portable unit." Claim 12 also recites "using the at least one of the digital contents as identification in communication between the apparatus and the portable unit via the wide area network." As discussed above in connection with claim 2, Weiss does not teach or suggest the wide area network limitation in the claim. Also, Weiss and Kaplan do not teach or suggest the use of both local and wide area interfaces.

As a result of the significant differences between Weiss/Kaplan and claim 12, claim 12 is patentable over the art relied upon by the Examiner.

(C) Claims 8 and 17 are patentable over the applied prior art because the applied prior art does not teach the use an algorithm as digital content.

Claims 8 and 17 recite that at least one digital content comprises an algorithm. In rejecting claims 8 and 17, the Examiner pointed to the abstract of Weiss. The abstract of Weiss reads as follows (emphasis added):

"A portable hand held computing and indicating device for use in a verification system of the type wherein a first non-predictable code is generated at a first mechanism in accordance with a **predetermined algorithm** in response to both a unique static variable and a dynamic variable and a second non-predictable code is generated at a second mechanism in accordance with the **predetermined algorithm**

in response to both the unique static variable and a second dynamic variable which corresponds to the first variable. The non-predictable codes are compared at the second mechanism to effect verification. The device forms the first mechanism and includes a processor having the **algorithm preprogrammed** therein and a means for storing a static variable which is unique for each device. The device also includes a means for generating a time varying dynamic variable which is substantially the same as that generated at the second mechanism at a given instant of time. The stored unique variable and the currently generated dynamic variable are applied to the processor and the resultant non-predictable code is visually displayed. The program for executing the **algorithm** and the static variable are preferably stored in volatile memory which causes the program and the static variable to be erased if any effort is made to gain access thereto. All or a portion of the static variable may appear in visually perceptible form on the device."

Based on the abstract, the algorithm in Weiss is predetermined. This is different from the claim invention in which the digital content is non-deterministic. Consequently, claims 8 and 17 are patentable over the art relied upon by the Examiner.

(D) Other Claims

Other claims depend from claims 2 or 12 (directly or indirectly). They are patentable on at least the same basis as claims 2 and 12.

Conclusion

It is believed that all grounds of rejection have been satisfactorily answered. The allowance of the rejected claims is respectfully urged.

Respectfully Submitted

April 24, 2009

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Hark C. Chan

CLAIM APPENDIX

2.   A system for communication through a wide area network, said system comprising:

an apparatus comprising:

a first wide area interface for communicating with at least one portable unit via said wide area network; and

a first local interface for communicating with said at least one portable unit when said at least one portable unit is located within a domain;

said at least one portable unit comprising:

a second wide area interface for communicating with said apparatus via said wide area network; and

a second local interface for communicating with said apparatus when said at least one portable unit is located within said domain;

at least one member of said apparatus and said at least one portable unit generates non-deterministic digital contents at multiple times without user action at these times, said one member uses its local interface to deliver at least one of said digital contents to another member of said apparatus and said at least one portable unit, said digital contents being used by said apparatus and said at least one portable unit as identification in communication via said wide area network.

3.   The system of claim 2 wherein said one member comprises a random number generator used for generating said digital contents.

4.   The system of claim 2 wherein said apparatus and said at least one portable unit each comprises a memory for storing said at least one non-deterministic digital content.

5.   The system of claim 2 wherein each of said first and said second local interfaces comprises a radio frequency interface.

6.   The system of claim 2 wherein said at least one portable unit comprises a cellular phone.

7.   The system of claim 2 wherein said at least one portable unit comprises a personal digital assist device.

8.   The system of claim 2 wherein said at least one digital content comprises an algorithm.

9.   The system of claim 2 wherein said at least one digital content comprises a digital code.

10.   The system of claim 2 wherein said first local interface and said at least one portable unit performs authentication in delivering said at least one digital content.

11.   The system of claim 2 wherein said one member can detect a presence of said another member and delivers said at least one digital content to said another member automatically without user intervention.

12.   A method for an apparatus and a portable unit to communicate through a wide area network, comprising:

generating non-deterministic digital contents by one of the apparatus and the portable unit at multiple times without user action at these times;

while the apparatus and portable unit are within a domain, delivering at least one of the digital contents by the one of the apparatus and the portable unit to another of the apparatus and the portable unit; and

using the at least one of the digital contents as identification in communication between the apparatus and the portable unit via the wide area network.

13.   The method of claim 12 wherein the one of the apparatus and the portable unit comprises a random number generator for generating the digital contents.

14.   The method of claim 12 wherein the delivering is conducted using radio frequency signals.

15.   The method of claim 12 wherein the portable unit comprises a cellular phone.

16.   The method of claim 12 wherein the portable unit comprises a personal digital assist device.

17.   The method of claim 12 wherein the at least one digital content comprises an algorithm.

18.   The method of claim 12 wherein the at least one digital content comprises a digital code.

19.   The method of claim 12 wherein the delivering comprises authenticating at least one of the apparatus and the portable unit.

20.   The method of claim 12 wherein the one of the apparatus and portable unit can detect a presence of the another of the apparatus and the portable unit and deliver the at least one digital content to the another automatically without user intervention.

EVIDENCE APPENDIX

RELATED PROCEEDINGS APPENDIX